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# Teacher Turnover in Michigan

A Look at Teacher Mobility and  
Attrition Rates

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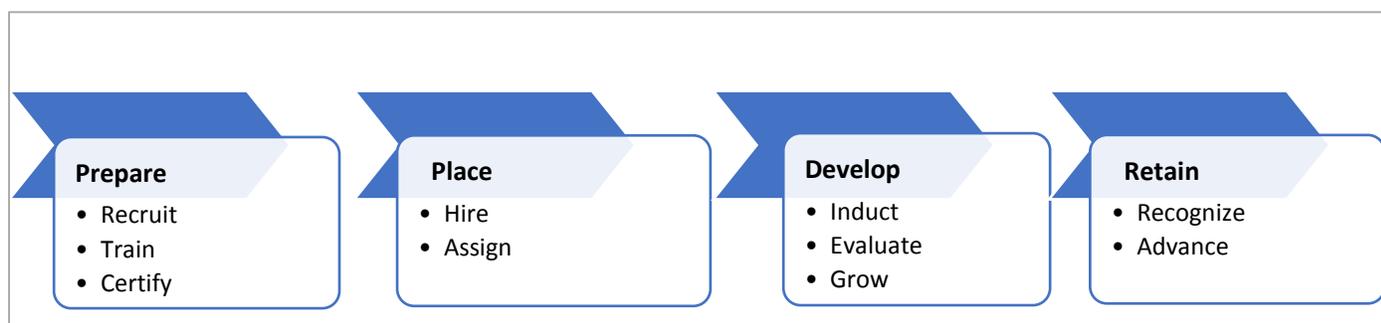
## Introduction

The purpose of this brief is to report trends in school-to-school mobility and attrition within the Michigan teacher workforce.

A healthy and vibrant educator workforce is a key component in high-functioning education systems. The state of Michigan has identified an effective education workforce as one of its four key focus areas in [Michigan's Top 10 in 10 Strategic Plan](#).

Key to this work is leveraging the rich data sources available through the MDE and the Center for Educational Performance and Information (CEPI) by creating long-term and short-term analyses pertinent to workforce issues. This work is intended to support internal and external stakeholders in making informed decisions regarding educator preparation, credentialing, hiring, professional development, and retention.

The teacher pipeline can be conceptualized in many ways. Below is a representation of the teacher pipeline in Michigan, useful to understanding the analysis in this brief.



This white paper contains information on the retain phase of the pipeline, and will specifically focus on teacher attrition and mobility in Michigan.

Examining teacher mobility and attrition patterns in Michigan is one critical step in the MDE's efforts to understand patterns in our educator workforce pipeline. Higher rates of mobility and attrition—or turnover— have substantial costs of time, resources, and money for schools, districts, and ISDs. Higher rates of turnover may be indicators of inefficiencies or systemic problems in the teacher pipeline. High rates of mobility or attrition may also be symptoms of systemic problems within schools, districts, and ISDs, such as unhealthy culture and climate (Ingersoll, 2001). High rates of teacher turnover pose a serious equity concern because teacher turnover disproportionately occurs at schools serving larger populations of students of color, students from low-income families, and low-achieving students (Haynes, 2014).

The National Center for Education Statistics (NCES) studies teacher mobility and attrition in a longitudinal study called the [National Teacher and Principal Survey](#) (NTPS) (formerly referred to as the Schools and Staffing Survey, or SASS) and the related Teacher Follow-up Survey (TFS).

The NTPS is administered annually while the TFS is administered once every four years. This work provides important data on national trends in teacher mobility and attrition. This brief analyzes turnover rates for the Michigan teacher workforce and compares them to the appropriate national rates for context.

The data in this brief can be a valuable resource to inform state and local decision-making to support a healthy educator workforce.

## Key Terms and Data Considerations

This paper focuses on one aspect of the teacher pipeline: the year-to-year turnover/stability of our teacher workforce. Researchers study teacher attrition and mobility in various contexts and occasionally use different vocabulary. Teacher mobility exists between schools and/or between districts. Here, we concern ourselves specifically with inter-school mobility. For this brief, the following definitions are applicable:

- **Teacher turnover:** The broad phenomenon of a teacher teaching in a school one year and not teaching in that same school the next year. This encompasses teachers who move to a different school (**mobility**), or who leave the teaching workforce entirely (**attrition**).
- **Teacher mobility:** The phenomenon of a teacher teaching in one school in one year and a different school in the next. In the national Teacher Follow-up Survey (TFS) data, these teachers are called **movers**. While the TFS survey captures movers who move across state lines, the MDE does not have data on teachers who move to other states. For this reason, these teachers are considered leavers in the Michigan data (see below)
- **Teacher attrition:** The phenomenon of a teacher teaching in a public school in one year, but not teaching in a public school the following year. In the TFS data, these teachers are called **leavers**. It is important to note that these teachers may or may not return to the teaching workforce in future years, but they are coded as “leavers” if they are not in the teacher workforce in the year following the base year. For the Michigan data, a teacher is considered a leaver if he or she leaves the Michigan public school teaching force in the following year.
- **Teacher stability:** The phenomena of a teacher teaching in the same school in consecutive years. In the TFS data, these teachers are called **stayers**.
- **Base year:** The base year is the first of the two school years that were used to calculate teacher mobility, attrition, and stability.

The data for this study were compiled with the assistance of [the Michigan Center for Educational Performance and Information](#) (CEPI). The population for this dataset includes any Michigan teacher with a teaching assignment in a Michigan public school in the base year.<sup>1</sup>

## Michigan Teacher Turnover Data Compared to National Benchmarks

As part of the Teacher Follow-up Study (TFS), the NCES reports compiled numbers and percentages of teachers who are stayers, movers, or leavers beginning in the 2004-2005 school year. These rates are calculated based on year-to-year turnover trends, and the TFS is administered every four years. The NCES also disaggregates teacher turnover/stability data based on several teacher- and school-level variables. In this section, we highlight some of these data and provide the comparable Michigan data.

### General Turnover/Stability Trends

The general national trends for teacher turnover/stability are presented in **Table 1**.

Table 1

Number and percentage distribution of U.S. public school teacher stayers, movers, and leavers: 2004-2005 through 2012-2013

Year	Number				Percent		
	Total base year teachers	Stayers	Movers	Leavers	Stayers	Movers	Leavers
2004–05	3,214,900	2,684,200	261,100	269,600	83.5%	8.1%	8.4%
2008–09	3,380,300	2,854,900	255,700	269,800	84.5%	7.6%	8.0%
2012–13	3,377,900	2,846,500	271,900	259,400	84.3%	8.1%	7.7%

Base year refers to the year in which the Schools and Staffing Survey (SASS) was administered. The SASS is always administered a year prior to the Teacher Follow-up Survey (TFS). The total number of base year teachers for any year is slightly lower than in previously published counts, as all teachers who responded to SASS but were ineligible for TFS (e.g., because they died or moved out of the country) were removed from the weighted count of base year teachers.

**SOURCE:** U.S. Department of Education, National Center for Education Statistics, Teacher Follow-up Survey (TFS), "Current and Former Teacher Data Files," 2012-13; Teacher Attrition and Mobility: Results from the 2008-09 Teacher Follow-up Survey, U.S. Department of Education, National Center for Education Statistics (NCES 2010-353). Accessed from: [https://nces.ed.gov/surveys/sass/tables/TFS1213\\_2014077\\_cf1n\\_001.asp](https://nces.ed.gov/surveys/sass/tables/TFS1213_2014077_cf1n_001.asp)

These data reflect that nationally, the overall rates of stayers, movers, and leavers is relatively consistent over time. Generally, most of the teaching workforce nationally (approximately 84%)

<sup>1</sup> In any given year, approximately 10% of teachers who have teaching assignments in multiple buildings. In building this dataset, those teachers were coded as "multiple." Teachers who taught in multiple buildings in consecutive years were coded as "stayers." Teachers who taught in multiple buildings one year, but only one building in a consecutive year were coded as "movers."

stays in the same school over the course of any two years. Approximately 8% of the workforce changes schools, and approximately 8% leave the workforce in the subsequent year.

These data provide an important context for interpreting Michigan’s teacher turnover data over the same time span. The Michigan data are presented in **Table 2**.

Table 2  
Number and percentage of Michigan public school teacher stayers, movers, and leavers: 2004-2005 through 2016-2017

Year	Number				Percent		
	Total base year teachers	Stayers	Movers	Leavers	Stayers	Movers	Leavers
2004–05	102,832	84,830	9,799	8,203	82.5%	9.5%	8.0%
2008–09	98,494	81,074	10,195	7,225	82.3%	10.4%	7.3%
2012–13	94,603	75,904	12,181	6,518	80.2%	12.9%	6.9%
2016-2017	91,360	73,713	10,396	7,251	80.7%	11.4%	7.9%

In addition to the data through 2012-2013, we have included the most current data from the base year 2015-2016 to 2016-2017. The comparison of state data with national data reveals that Michigan’s workforce is marginally less stable with lower percentages of teachers staying in the same school. It appears that most of this gap is accounted for by the rate of movers, which is higher in Michigan than it is nation-wide. The difference in trends for national and Michigan stayers, movers, and leavers are depicted in Figures 1-3.

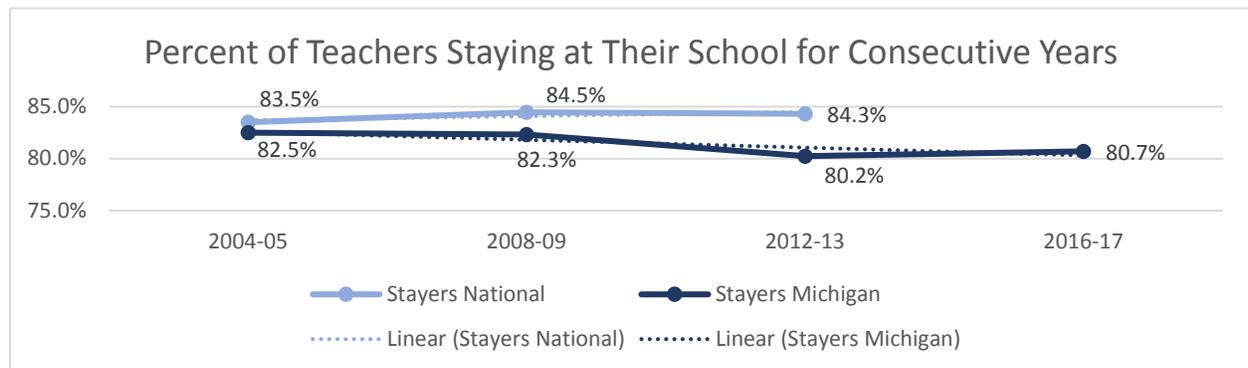


Figure 1. Trends in public school teachers staying in the same school for consecutive years, U.S. (2004-2005 through 2012-2013) and Michigan (2004-2005 through 2016-2017)

Note: This figure omits 0 from the y axis for readability. As a result, the magnitude of differences may appear to be proportionally larger than they are

Figure 1 shows a gap between stability rates; the teaching workforce is generally more stable nationally than it is in Michigan. It also appears that the gap is widening as Michigan’s stability rate has declined over time. Each teacher who doesn’t stay in the same school from year to year is either a mover or a leaver. The rates of teacher movers and leavers are depicted in Figures 2 and 3.

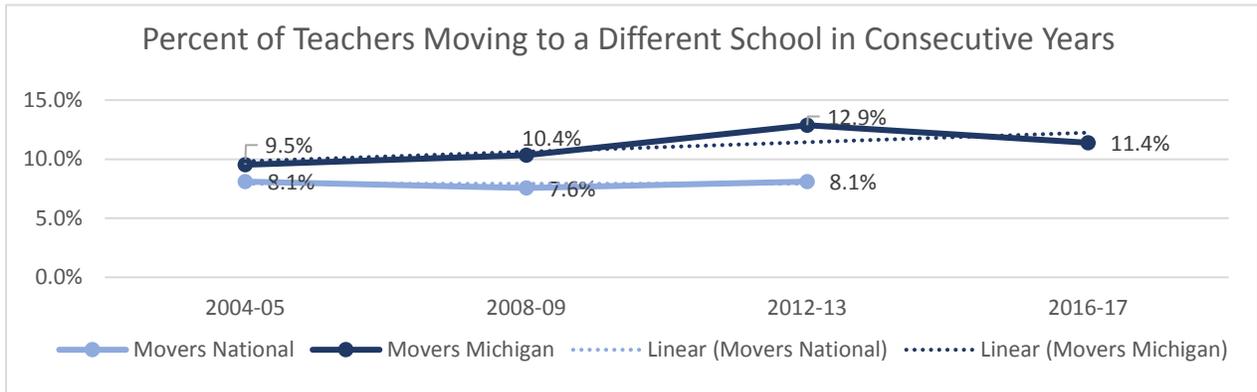


Figure 2. Trends in public school teachers moving schools in consecutive years, U.S. (2004-2005 through 2012-2013) and Michigan (2004-2005 through 2016-2017)

As discussed above, much of the gap in stability rates can be explained by Michigan’s elevated rates of teachers who move from school to school. This rate has increased from 2004-2005 to its current level. In the last base year with benchmark data (2012-2013), Michigan’s rate is more than 50% higher than the national rate.

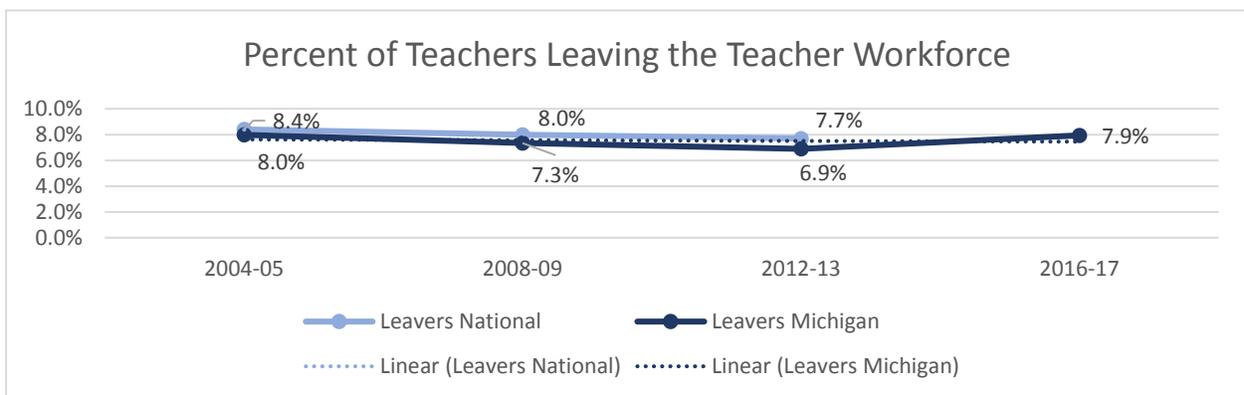


Figure 3. Trends in public school teachers exiting the workforce, U.S. (2004-2005 through 2012-2013) and Michigan (2004-2005 through 2016-2017)

The rate of teachers leaving the workforce appears to more closely track the national percentages over time than Michigan’s rates of stayers and leavers.

## Disaggregated Mobility Trends

It is possible to disaggregate these trends based on several factors at both the teacher and school level. The NCES has done this with the TFS. In the Tables 3, 4, and 5 below, we present national and Michigan teacher turnover data disaggregated by teacher gender (labeled “sex” in the NCES data), teacher ethnicity, and school type (traditional public vs. charter).

This is not an exhaustive list of the categorizations available in the TFS data, and additional variables will be explored in depth in future analyses.

**Table 3**  
National Turnover/Stability Data Disaggregated by Teacher or School Characteristic in Base Year 2011-2012

	Number				Percent		
	Total	Stayers	Movers	Leavers	Stayers	Movers	Leavers
<b>Total Count</b>	3,377,900	2,846,500	271,900	259,400	84.3	8.1	7.7
<b>School classification</b>							
Traditional public	3,264,900	2,754,400	260,400	250,100	84.4	8.0	7.7
Public charter	113,000	92,100	11,600	9,300	81.5	10.2	8.2
<b>Sex</b>							
Male	801,200	686,600	63,000	51,600	85.7	7.9	6.4
Female	2,576,600	2,159,900	208,900	207,800	83.8	8.1	8.1
<b>Race/ethnicity</b>							
White, non-Hispanic	2,769,700	2,353,400	207,300	209,000	85.0	7.5	7.5
Black, non-Hispanic	229,400	179,400	26,900	23,100	78.2	11.7	10.1
Hispanic, regardless of race	261,200	207,400	33,000	20,800	79.4	12.6	8.0
Asian, non-Hispanic	63,800	61,200	1,600	‡	95.8	‡	‡
Native Hawaiian/Pacific Islander, non-Hispanic	‡	#	#	‡	#	#	100.0
American Indian/Alaska Native, non-Hispanic	22,300	17,500	‡	‡	78.8	‡	‡
Two or more races, non-Hispanic	31,200	27,700	1,800	‡	88.8	‡	‡

# Rounds to zero.

! Interpret data with caution. The coefficient of variation (CV) for this estimate is between 30 percent and 50 percent (i.e., the standard error is at least 30 percent and less than 50 percent of the estimate).

‡ Reporting standards not met. The coefficient of variation (CV) for this estimate is 50 percent or greater (i.e., the standard error is 50 percent or more of the estimate).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Teacher Follow-up Survey (TFS), "Current and Former Teacher Data Files," 2012–13.

Table 4

Michigan Turnover/Stability Data Disaggregated by Teacher or school characteristic in base year 2011-2012

Michigan Mobility Data 2012-2013	Number				Percent		
	Total	Stayers	Movers	Leavers	Stayers	Movers	Leavers
<b>Total Count</b>	94,603	75,904	12,181	6,518	80.2%	12.9%	6.9%
<b>School classification</b>							
Traditional public	76,542	63,894	7,896	4,752	83.5%	10.3%	6.2%
Public charter	7,610	5,271	1,314	1,025	69.3%	17.3%	13.5%
<b>Sex</b>							
Male	23,393	18,993	2,747	1,653	81.2%	11.7%	7.1%
Female	70,816	56,685	9,393	4,738	80.0%	13.3%	6.7%
<b>Race/ethnicity</b>							
White, non-Hispanic	84,366	69,544	9,759	5,063	82.4%	11.6%	6.0%
Black, non-Hispanic	5,101	3,014	1,638	449	59.1%	32.1%	8.8%
Hispanic, regardless of race	956	724	181	51	75.7%	18.9%	5.3%
Asian, non-Hispanic	534	416	85	33	77.9%	15.9%	6.2%
Native Hawaiian/Pacific Islander, non-Hispanic	122	95	13	14	77.9%	10.7%	11.5%
American Indian/Alaska Native, non-Hispanic	209	167	37	5	79.9%	17.7%	2.4%
Two or more races, non-Hispanic	619	446	112	61	72.1%	18.1%	9.9%

Table 5

Michigan Turnover/Stability Data Disaggregated by Teacher or school characteristic in base year 2015-2016

Michigan Mobility Data 2016-2017	Number				Percent		
	Total	Stayers	Movers	Leavers	Stayers	Movers	Leavers
Total Count	91,360	73,713	10,396	7,251	80.7%	11.4%	7.9%
<b>School classification</b>							
Traditional public	70,576	60,612	4,926	5,038	85.9%	7.0%	7.1%
Public charter	8,209	5,718	1,253	1,238	69.7%	15.3%	15.1%
<b>Sex</b>							
Male	22,288	18,041	2,497	1,750	80.9%	11.2%	7.9%
Female	68,744	55,477	7,871	5,396	80.7%	11.4%	7.8%
<b>Race/ethnicity</b>							
White, non-Hispanic	82,990	67,836	8,981	6,173	81.7%	10.8%	7.4%
Black, non-Hispanic	4,742	3,243	955	544	68.4%	20.1%	11.5%
Hispanic, regardless of race	1,112	857	160	95	77.1%	14.4%	8.5%
Asian, non-Hispanic	670	493	94	83	73.6%	14.0%	12.4%
Native Hawaiian/Pacific Islander, non-Hispanic	91	72	9	10	79.1%	9.9%	11.0%
American Indian/Alaska Native, non-Hispanic	244	198	30	16	81.1%	12.3%	6.6%
Two or more races, non-Hispanic	675	492	106	77	72.9%	15.7%	11.4%

### Mobility Trend Highlights

These tables contain data that provides additional context for understanding teacher turnover trends in Michigan schools. The snapshot and trend data merits further analysis and discussion. Initially, the list of noteworthy findings includes:

- Both nationally and in Michigan, teacher rates of movers and leavers were higher for public charter schools than they were for traditional public schools. (base year 2011-2012). This difference in rates is depicted in Figures 4-6.
- This trend of higher teacher turnover in Michigan public charter schools also is evident in the most current Michigan data (base year 2015-2016).
- Michigan's rates of public charter movers and leavers are much higher than national rates. This trend is displayed visually in Figures 4-6.

- Both nationally and in Michigan, there are significant differences in the turnover rates depending on teacher race/ethnicity. These differences for the three largest racial/ethnic groups are depicted in Figures 7-9.

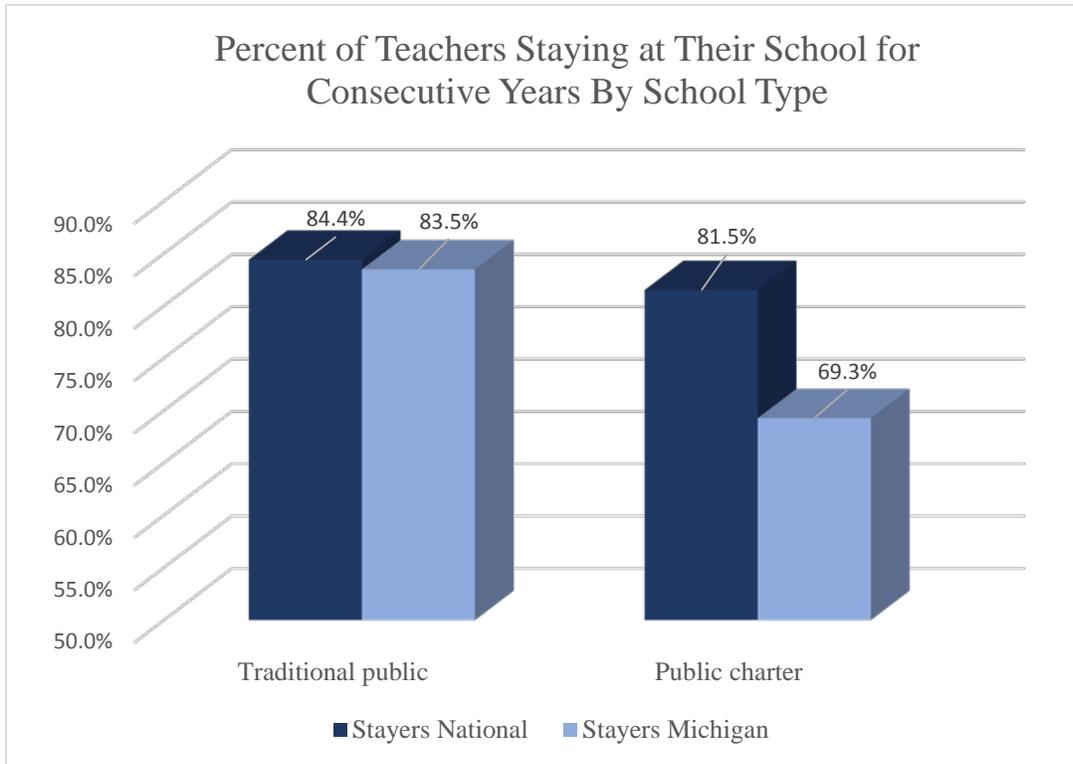


Figure 4. Percent of stayers by school type in Michigan and nationally for base year 2011-2012

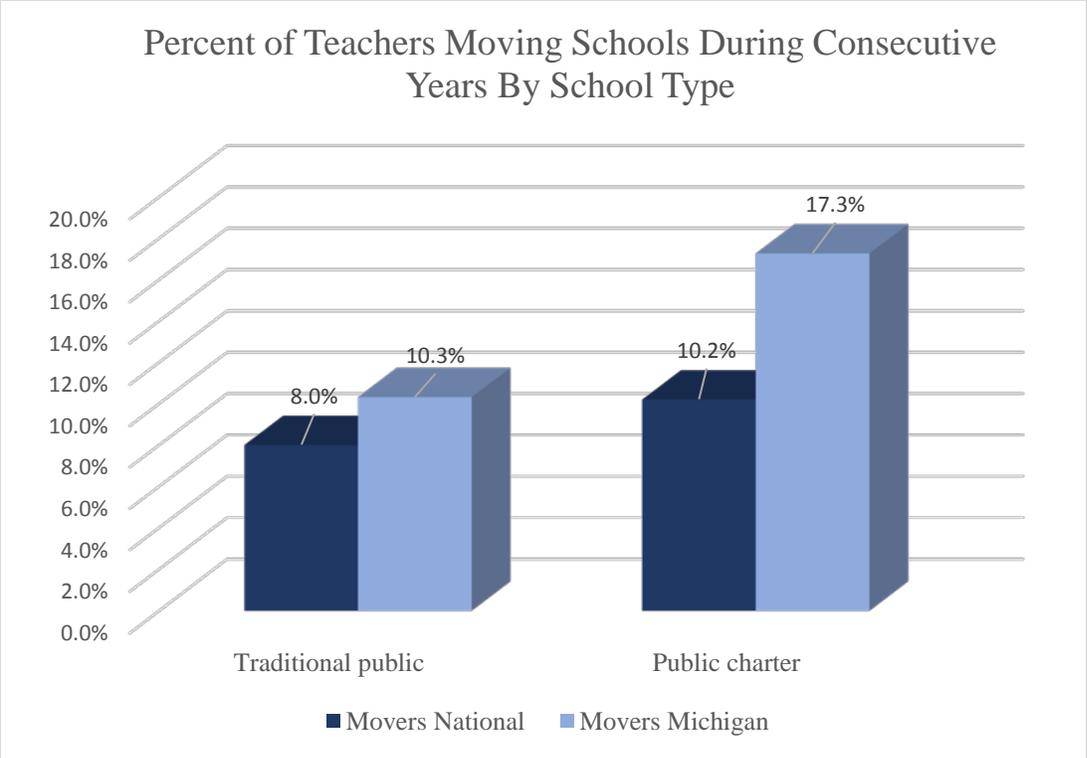


Figure 5. Percent of stayers by school type in Michigan and nationally for base year 2011-2012

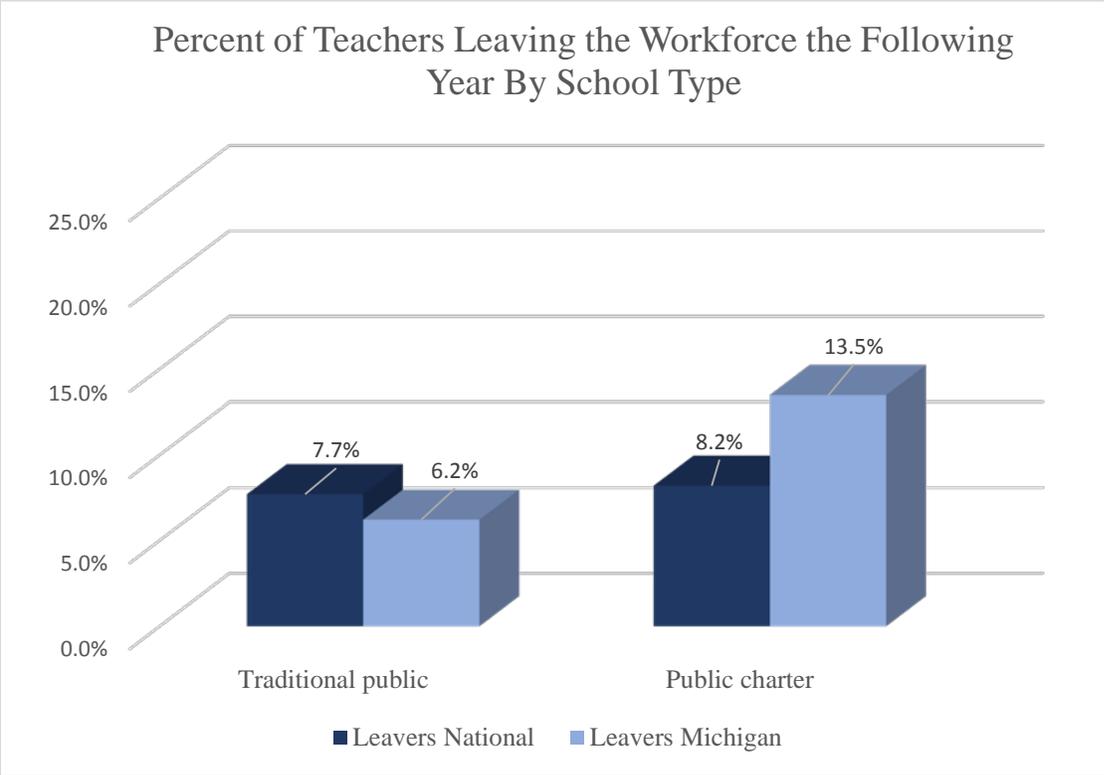


Figure 6. Percent of stayers by school type in Michigan and nationally for base year 2011-2012

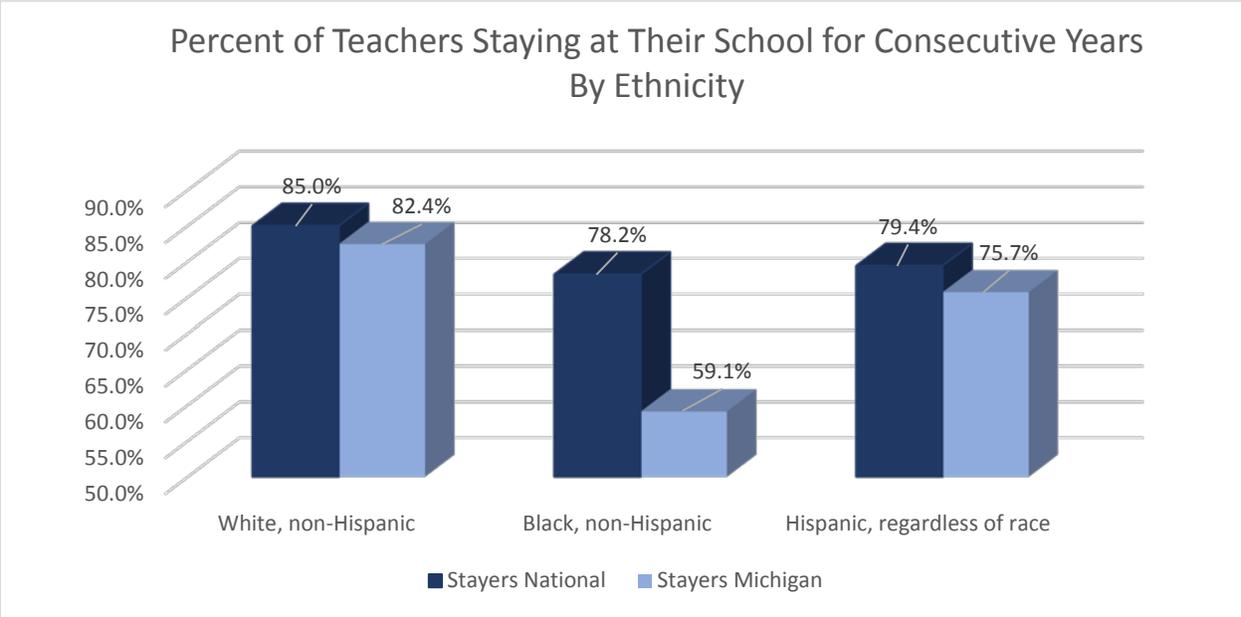


Figure 7. Percent of stayers in Michigan and nationally by ethnicity for base year 2011-2012

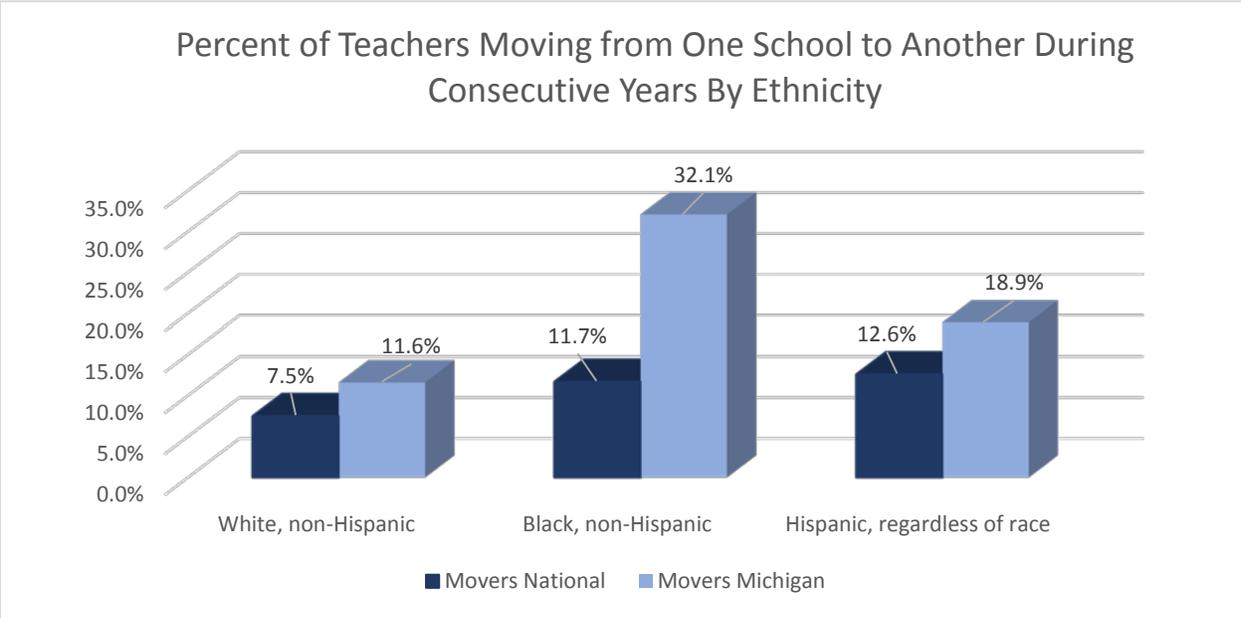


Figure 8. Percent of movers in Michigan and nationally by ethnicity for base year 2011-2012

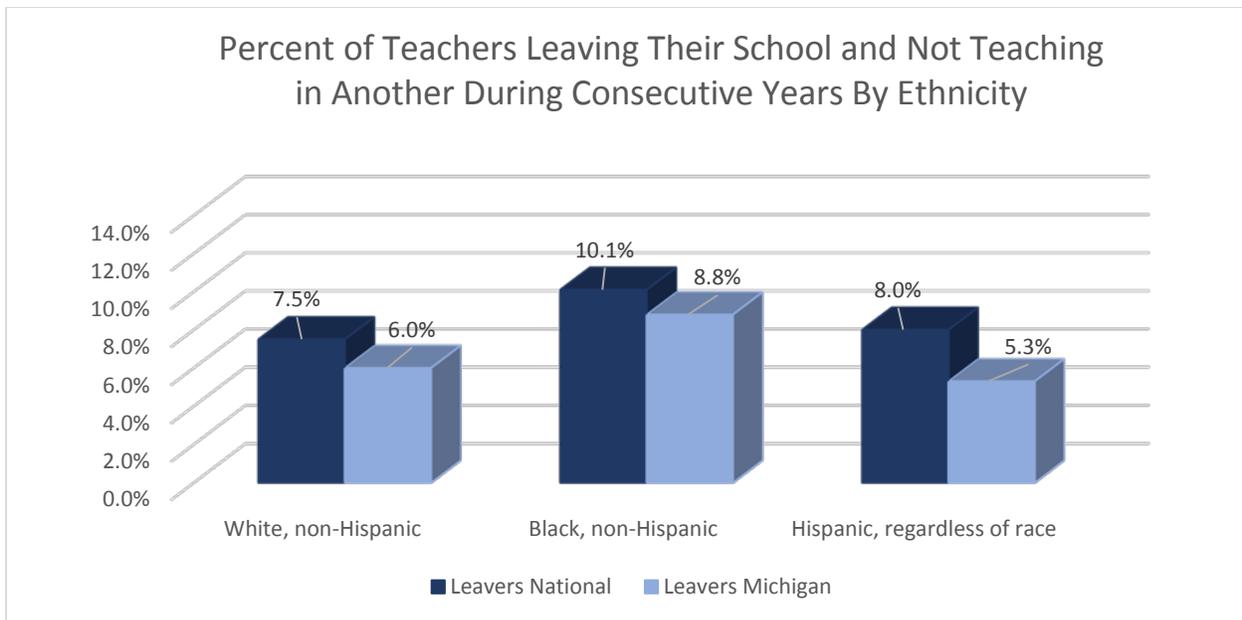


Figure 9. Percent of leavers in Michigan and nationally by ethnicity for base year 2011-2012

## Discussion

Understanding teacher turnover in Michigan is important for several reasons.

- The data reflect a higher turnover rate for Michigan teachers when compared to national averages.
- Turnover is expensive for schools and districts. The National Commission on Teaching and America's future estimated that in 2005, the cost per teacher lost to attrition can be as high as \$9,501. (Barnes, Crowe, & Schaefer, 2007). This cost includes "recruiting, hiring, processing, and training new teachers."
- National studies show that these costs are disproportionately borne by schools and districts serving minority and/or economically disadvantaged students, as teacher turnover occurs at disproportionately higher rates in these schools and districts (Haynes, 2014).
- High turnover rates may be a key indicator of larger problems in a school system, such as problems with school culture and climate. Conversely, teacher turnover may be a contributing cause of poor school performance. As Richard Ingersoll notes, "[. . .] high levels of employee turnover are both cause and effect of ineffectiveness and low performance in organizations" (Ingersoll, 2001).
- High turnover rates may contribute to teacher shortages on the demand side. Comprehensive solutions to teacher shortages will consider both how to recruit new teachers (supply) and how to retain the teachers we already have (demand) (Ingersoll, 2001).

The data presented in this brief provide a context for critical conversations about the relative health of Michigan's educator pipeline. Policy makers must consider the impact on the teacher pipeline in crafting policies that support teacher stability and minimizing the gaps in attrition and mobility when they exist across teacher demographic categories or school types.

National and state-wide teacher turnover data provide important benchmark information that schools and districts can use to interpret their own turnover data. In locations where the teacher workforce is relatively unstable, districts and partners should seek to understand the root causes of teacher pipeline problems and pursue solutions to promote stability.

It is important to note that there are some limitations to the comparison of Michigan rates to school or national rates. For example, mobility data both locally and nationally are affected by school openings and closings. Michigan, for example, has made policy decisions regarding school turnaround that incentivize or require staff turnover or school closure. Similar policies have been adopted in other states as well. This brief does not analyze the affect of these policies on mobility rates. Michigan data on school openings and closures can be found at [www.mischooldata.org](http://www.mischooldata.org).

These data suggest many further research opportunities. These include the link between salary and teacher mobility, other school-level characteristics that predict attrition, the impact of state and national policy on teacher mobility, and the impact that teacher turnover trends may have on potential teacher shortages.

The Office of Educator Talent will build upon these analyses over time, investigating demographic characteristics of Michigan educators, trends in the public school academy educator workforce, additional mobility data analyses, and characteristics and trends in the Michigan principal pipeline.

## References

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Ingersoll, R. M. (2001). Teacher turnover and teacher shortages: An organizational analysis. *American Educational Research Journal*, 38(3), 499-534.